King William County Public Schools

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August 7, 2012

Ms. Janine Howard
Water Permit Writer
DEQ Piedmont Regional Office
4949 A Cox Road
Glen Allen, VA 23060

Re: (1) Reissuance of VPDES Permit No. VA 0023914 Hamilton-Holmes Wastewater Treatment Plant (WWTP); Application Deficiencies Corrections

(2) Waiver Request: 24-Hours Composite Samples for cBODS and TSS analysis

(3) Haul Route Directions, Long's Septic Service to Maury Street Wastewater Treatment plant

Ms. Howard,

In response to your letter of July 26, 2012, the following application deficiencies have been addressed:

EPA Form 2A

- Part A.6.a. Revised to read 0.020 MGD rather than 0020 MGD.
- Part A.8.d. Sludge is pumped 4 times a year from the Hamilton Holmes WWTP at an estimate 3,000 gallons per event and transported to the City of Richmond WWTP for an estimated total of 12,000 gallons per year
- Part A.8.e. The answer to this question is "No".
- Part A.12 Effluent Testing Information Revisions
  - pH min = 6.5 SU, pH max = 8.0 SU
  - Max flow = 0.0381 MGD
  - Max $cBOD_5$ = 23.00 mg/L
  - Max fecal coliform = 300 N/cmL
  - Max TSS = 5.5 mg/L
- Part B.4. The answer to this questions is "No"

VPDES SEWAGE SLUDGE PERMIT APPLICATION FORM

- Section B.1. Estimate of the number of gallons of sludge shipped to the City of Richmond WWTP per year: 12,000 Gallons of Sludge shipped per year.
- Section B.3. The answer to this question. Is "neither or unknown".
- Section B.6. Shipment offsite for Treatment or Blending:
  - Item d. Estimated total amount of sludge that is pumped and hauled to the City of Richmond WWTP in a 365-day period is 12,000 gallons
  - Item e. VPDES permit number for the City of Richmond Wastewater Treatment Plant, "VA0063177".
  - Item f. The answer to this question is "Yes" and "Class B".
  - Item g. The answer to this question is "Yes" and "Option 1".
  - Item h. The answer to this question is "No".
  - Item j. The answer this question is "No".
  - Item k. The haul route that Long's Septic Services uses to transport the sewage sludge to the City of Richmond is documented and attached separately to this correspondence.

WWTP OPERATING DAYS OF THE WEEK AND HOURS:

- The plant runs 24-hours a day, 7- days per week. It is monitored 8 hours per day, Monday through Friday, and 2 hours per day Saturday and Sunday. Flow is experienced 5 days per week.

The amended application pages are attached to this correspondence and are incorporated by reference. A separate correspondence requesting waiver from the 24-hours composite samples is also attached and incorporated by reference.

Sincerely,

Rick Walters
Director of Operations

A.5. Indian Country.

a. Is the treatment works located in Indian Country?

_____ Yes ✓ No

b. Does the treatment works discharge to a receiving water that is either in Indian Country or that is upstream from (and eventually flows through) Indian Country?

_____ Yes ✓ No

A.6. Flow. Indicate the design flow rate of the treatment plant (i.e., the wastewater flow rate that the plant was built to handle). Also provide the average daily flow rate and maximum daily flow rate for each of the last three years. Each year's data must be based on a 12-month time period with the 12th month of "this year" occurring no more than three months prior to this application submittal.

a. Design flow rate : 0.020 mgt

	Two Years Ago	Last Year	This Year	
b. Annual average daily flow rate	0.0058	0.0061	0.0065	mgd
c. Maximum daily flow rate	0.0185	0.0186	0.0192	mgd

A.7. Collection System. Indicate the type(s) of collection system(s) used by the treatment plant. Check all that apply. Also estimate the percent contribution (by miles) of each.

✓ Separate sanitary sewer	100 %
_____ Combined storm and sanitary sewer	_____ %

A.8. Discharges and Other Disposal Methods.

a. Does the treatment works discharge effluent to waters of the U.S.? ✓ Yes _____ No

If yes, list how many of each of the following types of discharge points the treatment works uses:

i. Discharges of treated effluent 1

ii. Discharges of untreated or partially treated effluent _____

iii. Combined sewer overflow points _____

iv. Constructed emergency overflows (prior to the headworks) _____

v. Other _____ _____

b. Does the treatment works discharge effluent to basins, ponds, or other surface impoundments that do not have outlets for discharge to waters of the U.S.? _____ Yes ✓ No

If yes, provide the following for each surface impoundment:

Location: _____

Annual average daily volume discharged to surface impoundment(s) 0 mgd

Is discharge _____ continuous or _____ intermittent?

c. Does the treatment works land-apply treated wastewater? _____ Yes ✓ No

If yes, provide the following for each land application site:

Location: _____

Number of acres: _____

Annual average daily volume applied to site: _____ Mgd

Is land application _____ continuous or _____ intermittent?

d. Does the treatment works discharge or transport treated or untreated wastewater to another treatment works? ✓ Yes _____ No

If yes, describe the mean(s) by which the wastewater from the treatment works is discharged or transported to the other treatment works (e.g., tank truck, pipe).

Tank Truck

If transport is by a party other than the applicant, provide:

Transporter name: Long's Septic Services

Mailing Address: PO Box 300 Aylett, Virginia 25009

Contact person: Cody Long

Title: Owner

Telephone number: (804) 769-7668

For each treatment works that receives this discharge, provide the following:

Name: City of Richmond Maury Street Wastewater Treatment Plant

Mailing Address: 1400 Branden Street Richmond, Virginia 23226

Contact person: Sherry Crewe

Title: Environmental Safety Officer

Telephone number: (804) 646-8721

If known, provide the NPDES permit number of the treatment works that receives this discharge. VPDES# 0063177

Provide the average daily flow rate from the treatment works into the receiving facility. *(See Below) mgd

e. Does the treatment works discharge or dispose of its wastewater in a manner not included in A.8.a through A.8.d above (e.g., underground percolation, well injection)? ____ Yes X No

If yes, provide the following for each disposal method:

Description of method (including location and size of site(s) if applicable):

Annual daily volume disposed of by this method: ____

Is disposal through this method ____ continuous or ____ intermittent?

* **Sludge is pumped 4 times a year at 3,000 gallons per pump.**

FACILITY NAME AND PERMIT NUMBER:
Hamilton-Holmes Wastewater Treatment Plant VPDES #VA0023914

Form Approved 1/14/99
OMB Number 2040-0086

A.11. Description of Treatment.

a. What levels of treatment are provided? Check all that apply.

_____ Primary ___✓___ Secondary

_____ Advanced _____ Other. Describe: _____

b. Indicate the following removal rates (as applicable):

Design BOD_5 removal or Design $CBOD_5$ removal	95	%
Design SS removal	95	%
Design P removal	95	%
Design N removal	95	%
Other _____	_____	%

c. What type of disinfection is used for the effluent from this outfall? If disinfection varies by season, please describe.

Chlorination

If disinfection is by chlorination, is dechlorination used for this outfall? ___✓___ Yes _____ No

d. Does the treatment plant have post aeration? _____ Yes ___✓___ No

A.12. Effluent Testing Information. All Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three samples and must be no more than four and one-half years apart.

Outfall number: 001

PARAMETER	MAXIMUM DAILY VALUE		AVERAGE DAILY VALUE		
	Value	Units	Value	Units	Number of Samples
pH (Minimum)	6.5	s.u.			
pH (Maximum)	8.0	s.u.			
Flow Rate	0.0381	MGD	0.0062	MGD	12
Temperature (Winter)	22.1	Celsius	17.97	Celsius	12
Temperature (Summer)	26.2	Celsius	22.75	Celsius	12

* For pH please report a minimum and a maximum daily value

POLLUTANT		MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML / MDL
		Conc.	Units	Conc.	Units	Number of Samples		
CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS.								
BIOCHEMICAL OXYGEN	BOD-5	-	-	-	-	-	-	-
DEMAND (Report one)	CBOD-5	23.00	Mg/L	8.25	Mg/L	I/M	5210 B	2
FECAL COLIFORM		300	N/CML	52.85	M/CML	I/M	922I C	2
TOTAL SUSPENDED SOLIDS (TSS)		5.5	Mg/L	3.65	Mg/L	I/M	25400	1

END OF PART A.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

BASIC APPLICATION INFORMATION

PART B. ADDITIONAL APPLICATION INFORMATION FOR APPLICANTS WITH A DESIGN FLOW GREATER THAN OR EQUAL TO 0.1 MGD (100,000 gallons per day).

All applicants with a design flow rate ≥ 0.1 mgd must answer questions B.1 through B.6. All others go to Part C (Certification).

B.1. Inflow and Infiltration. Estimate the average number of gallons per day that flow into the treatment works from inflow and/or infiltration.

N/A gpd

Briefly explain any steps underway or planned to minimize inflow and infiltration.

B.2. Topographic Map. Attach to this application a topographic map of the area extending at least one mile beyond facility property boundaries. This map must show the outline of the facility and the following information. (You may submit more than one map if one map does not show the entire area.)

a. The area surrounding the treatment plant, including all unit processes.

b. The major pipes or other structures through which wastewater enters the treatment works and the pipes or other structures through which treated wastewater is discharged from the treatment plant. Include outfalls from bypass piping, if applicable.

c. Each well where wastewater from the treatment plant is injected underground.

d. Wells, springs, other surface water bodies, and drinking water wells that are: 1) within 1/4 mile of the property boundaries of the treatment works, and 2) listed in public record or otherwise known to the applicant.

e. Any areas where the sewage sludge produced by the treatment works is stored, treated, or disposed.

f. If the treatment works receives waste that is classified as hazardous under the Resource Conservation and Recovery Act (RCRA) by truck, rail, or special pipe, show on the map where that hazardous waste enters the treatment works and where it is treated, stored, and/or disposed.

B.3. Process Flow Diagram or Schematic. Provide a diagram showing the processes of the treatment plant, including all bypass piping and all backup power sources or redundancy in the system. Also provide a water balance showing all treatment units, including disinfection (e.g, chlorination and dechlorination). The water balance must show daily average flow rates at influent and discharge points and approximate daily flow rates between treatment units. Include a brief narrative description of the diagram.

B.4. Operation/Maintenance Performed by Contractor(s).

Are any operational or maintenance aspects (related to wastewater treatment and effluent quality) of the treatment works the responsibility of a contractor? ____Yes _X_ No

If yes, list the name, address, telephone number, and status of each contractor and describe the contractor's responsibilities (attach additional pages if necessary).

Name:

Mailing Address:

Telephone Number:

Responsibilities of Contractor:

B.5. Scheduled Improvements and Schedules of Implementation. Provide information on any uncompleted implementation schedule or uncompleted plans for improvements that will affect the wastewater treatment, effluent quality, or design capacity of the treatment works. If the treatment works has several different implementation schedules or is planning several improvements, submit separate responses to question B.5 for each. (If none, go to question B.6.)

a. List the outfall number (assigned in question A.9) for each outfall that is covered by this implementation schedule.

b. Indicate whether the planned improvements or implementation schedule are required by local, State, or Federal agencies.

____Yes ____No

SECTION B. GENERATION OF SEWAGE SLUDGE OR PREPARATION OF A MATERIAL DERIVED FROM SEWAGE SLUDGE

Complete this section if your facility generates sewage sludge or derives a material from sewage sludge

1. **Amount Generated On Site.**
Total dry metric tons per 365-day period generated at your facility: **12,000 Gallons of Sludge Shipped per Year**

2. **Amount Received from Off Site.** If your facility receives sewage sludge from another facility for treatment, use or disposal, provide the following information for each facility from which sewage sludge is received. If you receive sewage sludge from more than one facility, attach additional pages as necessary.

   a. Facility name: N/A

   b. Contact Person: _____

   Title: _____

   Phone: (_____) _____

   c. Mailing address:

   Street or P.O. Box: _____

   City or Town: _____ State: _____ Zip: _____

   d. Facility location: _____

   (not P.O. Box) _____

   e. Total dry metric tons per 365-day period received from this facility: _____ dry metric tons

   f. Describe, on this form or on another sheet of paper, any treatment processes known to occur at the off-site facility, including blending activities and treatment to reduce pathogens or vector attraction characteristics:

   _____

   _____

3. **Treatment Provided at Your Facility.**

   a. Which class of pathogen reduction is achieved for the sewage sludge at your facility?
   _____ Class A _____ Class B __X__ Neither or unknown

   b. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce pathogens in sewage sludge: _____

   _____

   c. Which vector attraction reduction option is met for the sewage sludge at your facility?

   _____ Option 1 (Minimum 38 percent reduction in volatile solids)

   _____ Option 2 (Anaerobic process, with bench-scale demonstration)

   _____ Option 3 (Aerobic process, with bench-scale demonstration)

   _____ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)

   _____ Option 5 (Aerobic processes plus raised temperature)

   _____ Option 6 (Raise pH to 12 and retain at 11.5)

   _____ Option 7 (75 percent solids with no unstabilized solids)

   _____ Option 8 (90 percent solids with unstabilized solids)

   _____ None or unknown

   d. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce vector attraction properties of sewage sludge: _____

   _____

   e. Describe, on this form or another sheet of paper, any other sewage sludge treatment activities, including blending, not identified in a - d above: _____

   _____

4. **Preparation of Sewage Sludge Meeting Ceiling and Pollutant Concentrations, Class A Pathogen Requirements and One of Vector Attraction Reduction Options 1-8 (EQ Sludge).**

   (If sewage sludge from your facility does not meet all of these criteria, skip Question 4.)

   a. Total dry metric tons per 365-day period of sewage sludge subject to this section that is applied to the land:
   _____ dry metric tons

   b. Is sewage sludge subject to this section placed in bags or other containers for sale or give-away?
   _____ Yes _____ No

5. **Sale or Give-Away in a Bag or Other Container for Application to the Land.**

   (Complete this question if you place sewage sludge in a bag or other container for sale or give-away prior to land application. Skip this question if sewage sludge is covered in Question 4.)

   a. Total dry metric tons per 365-day period of sewage sludge placed in a bag or other container at your facility for sale or give-away for application to the land: _____ dry metric tons

   b. Attach, with this application, a copy of all labels or notices that accompany the sewage sludge being sold or given away in a bag or other container for application to the land.

6. **Shipment Off Site for Treatment or Blending.**

   (Complete this question if sewage sludge from your facility is sent to another facility that provides treatment or blending. This question does not apply to sewage sludge sent directly to a land application or surface disposal site. Skip this question if the sewage sludge is covered in Questions 4 or 5. If you send sewage sludge to more than one facility, attach additional sheets as necessary.)

   a. Receiving facility name: City of Richmond Maury Street Wastewater Treatment Plant

   b. Facility contact: Sherry Crowe

      Title: Environmental Compliance Officer

      Phone: (804) 646-8721

   c. Mailing address:

      Street or P.O. Box: 1400 Branden Street

      City or Town: Richmond State: Virginia Zip: 23226

   d. Total dry metric tons per 365-day period of sewage sludge provided to receiving facility:
   _____ dry metric tons* **12,000 Gallons of Sludge Shipped per Year**

   e. List, on this form or an attachment, the receiving facility's VPDES permit number as well as the numbers of all other federal, state or local permits that regulate the receiving facility's sewage sludge use or disposal practices:

Permit Number:	Type of Permit:
VA0063277	_____
_____	_____

   f. Does the receiving facility provide additional treatment to reduce pathogens in sewage sludge from your facility?
   X Yes _____ No

   Which class of pathogen reduction is achieved for the sewage sludge at the receiving facility?
   _____ Class A X Class B _____ Neither or unknown

   Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce pathogens in sewage sludge: _____

   _____

   _____

   g. Does the receiving facility provide additional treatment to reduce vector attraction characteristics of the sewage sludge? X Yes _____ No

   Which vector attraction reduction option is met for the sewage sludge at the receiving facility?

   X Option 1 (Minimum 38 percent reduction in volatile solids)

   _____ Option 2 (Anaerobic process, with bench-scale demonstration)

_____ Option 3 (Aerobic process, with bench-scale demonstration)

_____ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)

_____ Option 5 (Aerobic processes plus raised temperature)

_____ Option 6 (Raise pH to 12 and retain at 11.5)

_____ Option 7 (75 percent solids with no unstabilized solids)

_____ Option 8 (90 percent solids with unstabilized solids)

_____ None unknown

Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce vector attraction properties of sewage sludge: N/A

h. Does the receiving facility provide any additional treatment or blending not identified in f or g above?
_____ Yes __X__ No

If "Yes", describe, on this form or another sheet of paper, the treatment processes not identified in f or g above:

i. If you answered "Yes" to f, g or h above, attach a copy of any information you provide to the receiving facility to comply with the "notice and necessary information" requirement of 9 VAC 25-31-530.G.

j Does the receiving facility place sewage sludge from your facility in a bag or other container for sale or give-away for application to the land? _____ Yes __X__ No

If "Yes", provide a copy of all labels or notices that accompany the product being sold or given away.

k. Will the sewage sludge be transported to the receiving facility in a truck-mounted watertight tank normally used for such purposes? __X__ Yes _____ No. If "No", provide description and specification on the vehicle used to transport the sewage sludge to the receiving facility.

Show the haul route(s) on a location map or briefly describe the haul route below and indicate the days of the week and the times of the day sewage sludge will be transported. **Days & Times Vary as Needed**

7. **Land Application of Bulk Sewage Sludge.**

(Complete Question 7.a if sewage sludge from your facility is applied to the land, unless the sewage sludge is covered in Questions 4, 5 or 6. Complete Question 7.b, c & d only if you are responsible for land application of sewage sludge.)

a. Total dry metric tons per 365-day period of sewage sludge applied to all land application sites:

_____ dry metric tons

b. Do you identify all land application sites in Section C of this application? _____ Yes _____ No

If "No", submit a copy of the Land Application Plan (LAP) with this application (LAP should be prepared in accordance with the instructions).

c. Are any land application sites located in States other than Virginia? _____ Yes _____ No

If "Yes", describe, on this form or on another sheet of paper, how you notify the permitting authority for the States where the land application sites are located. Provide a copy of the notification.

d. Attach a copy of any information you provide to the owner or lease holder of the land application sites to comply with the "notice and necessary" information requirement of 9 VAC 25-31-530 F and/or H (Examples may be obtained in Appendix IV).

Route Directions

From: Long's Septic Service 3503 Enfield Road, Aylett, Virginia 23009
To: City of Richmond Maury Street Wastewater Treatment Plant, 1400 Branden Street, Richmond, Virginia 23226.

From Long's Septic Service, head North on Enfield Road toward King William Road/Rt. 30. Turn right on King William Road/Rt. 30. Take Rt. 30 to Richmond-Tappahannock Hwy/Rt 360 W, (turn right on Rt. 360). Follow Rt. 360 W to I-64 W (toward I-95). Merge onto I-95 S via exit 190. Take the Maury Street Exit off I-95 (Exit 73) toward Commerce Road. Turn right onto Maury Street. Take Maury Street to Branden Street.